WHAT INFLUENCES HEALTH BEHAVIOR?
USING ELICITATION PROCEDURES TO LEARN FROM CAREGIVERS OF YOUNG CHILDREN IN VIETNAM

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Introduction: Globally, the caregiving behaviors that contribute to good nutritional status are well understood; but it is not clear why some caregivers perform these behaviors while others do not. This formative qualitative research was designed to improve understanding about what distinguishes caregivers who practice optimal behaviors from those who do not. We used theory-based behavior change research known as elicitation procedures to better understand the determinants of behavior change and to identify which determinants are the most appropriate to target in subsequent interventions. Elicitation has been used in other settings to examine such health-related behaviors as condom use among young adults in the United States (Middlestadt, Bhattacharyya, Rosenbaum, Fishbein, & Shepherd, 1996).

Behavior Change Theories: There are numerous theories that provide guidance about the factors that potentially influence behaviors. These include the Health Belief Model (Janz & Becker, 1984; Rosenstock, 1974), the Theory of Reasoned Action (Fishbein & Ajzen, 1975), Bandura's Social Cognitive Learning Theory (Bandura, 1977; Bandura, 1986) and others. While differences exist among theories, common factors are evident, including attitudes about the behavior itself; subjective norms; and self-efficacy. Attitudes in turn are influenced by the positive and negative consequences caregivers think may result from performing the behavior. In that regard, theory suggests that people will have favorable attitudes toward the behavior if the outcome of performing the behavior is considered positive and performing the behavior will lead to the expected outcome. With respect to norms, caregivers are potentially influenced by individuals they consider important. Caregivers' behaviors are likely influenced not only by what others expect them to do but also by their motivation to comply with others. Self-efficacy is the belief in one's own capability to perform a given behavior, even in the face of difficulties.

Methods: This study is a one-time, cross-sectional baseline assessment of factors that affect nutrition-related behavior change. It took place in a rural northern province in Vietnam where Save the Children was about to implement its Positive Deviance approach to rehabilitating malnourished children. As part of this study, 100 caregivers from 5 communes were interviewed. The communes were included in the study because of their geographic dispersion and because of similarities they shared with communes where Save the Children generally works: poor, low- or midland ecological regions with high rates of malnutrition. In each of the 5 communes, 20 primary caregivers with a youngest child between 6 and 17.9 months old were randomly selected from rosters developed by the research team and local commune-level officials.

Four frequent positive deviant behaviors were selected to represent the behaviors often identified during positive deviance inquiries in similar settings in other provinces. Positive deviance inquiries are open-ended discussions with parents of positive deviant children to learn how parents are able to keep their children well-nourished in spite of tremendous poverty. Results from instrument pre-testing suggested that some behaviors—such as immunizing children—were nearly universal. By definition, a positive deviant behavior is one that is practiced by a few individuals in the community, but that contributes to the health of the child. Common behaviors were dropped from the study. By definition, all behaviors needed to include an action, a timeframe, an object and a context. Definitions for the 4 positive deviant behaviors were:

1. Feeds child positive deviant foods: at least 2-3 times a week, caregivers feed child at least one nutritious food that neighbors sometimes or almost never feed their children.
2. Feeds child during diarrheal episodes: continues to give the child the same amount or more foods and liquids when child has diarrhea (3 or more loose or watery stools in the last 24 hours).
3. Washes child's hands: washes child's hands with water before every meal (but does not necessarily use soap).
4. Takes child to health center when ill: goes with the child to the health center when the child is ill (not necessarily restricted to the last illness episode).

In addition to information about whether or not caregivers practiced each of the 4 positive deviant behaviors, the data collection instrument included open-ended questions about beliefs and

attitudes, social norms, facilitators and barriers and self-efficacy related to the behaviors, as well as perceived advantages and disadvantages of practicing each one. The example below gives the questions used to assess determinants of feeding during diarrhea. Similar questions were asked for giving positive deviant foods, washing the child's hands and taking the sick child to the health center.

To assess:	We asked:
Beliefs and Attitudes and **Perceived Advantages and Disadvantages**	➢ What do you see as the good things that would happen if you continued to give your child foods and liquids as usual when he/she has diarrhea? ➢ What do you see as the bad things?
Social Norms	➢ Who gives you advice about giving your child foods and liquids as usual if your child has diarrhea? Who else gives you advice? (Up to 4 individuals were allowed). ➢ Could you tell us what their advice was (should give your child the same amount or more/should not give the same amount or more)? ➢ If their advice was to give the same amount or more, was that advice very strong, strong or somewhat strong? ➢ If their advice was not to give the same amount or more, was that advice very strong, strong or somewhat strong? (Level of advice was collected for all individuals identified as giving advice).
Facilitators and Barriers	➢ What makes it easy to continue to give your child foods and liquids when he/she has diarrhea? ➢ What makes it difficult?
Self-efficacy	➢ How able are you to continue feeding the child the same amount or more foods and liquids even when you are faced with difficulties[1]?

[1] In the question immediately prior (facilitators and barriers), caregivers were asked about specific difficulties they had encountered feeding the child as much or more during diarrheal episodes. When interviewers asked questions designed to gauge self-efficacy, they substituted specific difficulties caregivers mentioned in the question about barriers. Thus, if a particular caregiver indicated that her mother-in-law's disapproval made it difficult for her to give as much or more foods and liquids during diarrhea, in the subsequent question, that caregiver was asked "How able are you to continue feeding the child the same amount or more foods and liquids even when your mother-in-law disapproves?".

In addition, the following sociodemographic information was obtained:

Sociodemographic Information	➢ Relationship between respondent and child ➢ Respondent's age ➢ Number of living children respondent has ➢ Child's date of birth ➢ Respondent's education ➢ Family economic situation (as assessed by interviewer) ➢ Whether respondent was living with husband's parents

Two senior Vietnamese consultants were hired to identify eligible mothers and their children. Five interviewers with previous experience conducting in-depth interviews were selected and trained over a period of 6 days. Data collection took place the last week of September and the first week of October, 1999.

Once collected, textual data were translated into English and entered verbatim into EpiInfo (Centers for Disease Control and Prevention, Atlanta, GA). Data were then exported to an Excel spreadsheet where responses were sorted, categorized and coded, depending upon the type of response caregivers gave. Categories were developed directly from caregivers' responses. The Excel spreadsheet (with coded categories) was then exported to SPSS (SPSS Inc., Chicago, IL). SPSS was used to calculate frequencies and percents for coded responses as well as close-ended questions from the field guide. SPSS was also used to list the actual text of each respondent, thereby preserving the meaning of what had been said. Social norms were scored on a 7-point scale ranging from 1 (very strong negative advice to practice the behavior) to 7 (very strong positive advice). Likewise, self-efficacy was scored on a 7-point scale ranging from "very sure I am unable to practice the behavior" to "very sure I am able to practice the behavior". Because the self-efficacy queries were linked to questions about difficulties practicing positive deviant behaviors, only those individuals who expressed at least some difficulty were asked how able they felt about engaging in such behaviors.

Results: Results from 100 in-depth interviews indicate that caregivers who feed their children positive deviant foods and who take their children to the health center when ill have more favorable beliefs and attitudes, social norms and self-efficacy towards those behaviors than caregivers who do not. Positive, reinforcing beliefs, attitudes and social norms distinguished those who fed as much or more foods and liquids during diarrhea from those who did not, but self-efficacy was not an important predictor of this behavior. Self-efficacy and norms were, however, important determinants of washing children's hands before meals. Doers of optimal behaviors were able to identify many benefits of feeding positive deviant foods, taking children to the health center and feeding as much or more during diarrheal episodes. Non-doers often had difficulty thinking of a single advantage of doing so. Findings from this research suggest that fathers and in-laws are more likely to fail to advise mothers about infant feeding and health than they are to provide negative advice.

Results from this study were further used to develop a quantitative index that measures the impact of behavioral determinants—including knowledge, beliefs and attitudes, norms and self-efficacy—on nutrition behaviors. Questions about beliefs and attitudes, including the one below, were developed to evaluate the strength of the caregiver's belief that practicing the behavior would lead to the stated consequence. The construction of questions was based upon the language doers used to describe the consequences of engaging in positive deviant behaviors.

Feeding my child eggs once a day will help my child grow healthy fast.

very likely ___:___:___:___:___:___:___ very unlikely

Fixed-item questions to gauge social norms were developed using a two-part question. The first asked about whether an individual important to the mother believed she should practice the behavior and the second part asked how strongly the mother felt about following the advice of the individual.

> *My mother-in-law thinks I:*
>
> *___ should feed child the same amount when he/she has diarrhea*
> *___ should not feed child the same amount when he/she has diarrhea*
>
> *When it comes to how much I feed the child when he/she has diarrhea, I:*
>
> *want to do ___:___:___:___:___:___:___ do not want to do what my mother-in-law says*

Self-efficacy was measured by naming something non-doers cited frequently as a barrier to adopting a positive deviant behavior and by asking how able the person felt she could practice the behavior in spite of the specific barrier.

> *Parents in this area tell us that it is difficult to wash children's hands before every meal because parents and grandparents are busy. How able are you to wash your child's hands before every meal, even when you are busy with other work?*
>
> *very sure I am able ___:___:___:___:___:___:___ very sure I am unable*

By discovering what distinguishes those who practice optimal behaviors from those who do not, researchers, program planners and others are better equipped to develop targeted interventions that lead to positive behavior change.

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